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EXAMINER
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KARLS, SHAY LYNN

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1744

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PAPER

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/806,800  
Filing Date: June 25, 2001  
Appellant(s): SWANEPOEL, ADRIAAN RETIEF

**MAILED**  
**JUN 26 2007**  
**GROUP 1700**

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Gerald McGlynn  
For Appellant

**EXAMINER'S ANSWER**

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This is in response to the appeal brief filed 1/31/07 appealing from the Office action mailed 8/8/06.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

No amendment after final has been filed.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

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**(8) Evidence Relied Upon**

3899800	WITTWER ET AL	8-1975
4587686	THOMPSON	5-1986
3192551	APPEL	7-1965

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

**1. Claims 1-10 and 13-14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.**

The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The amended claims include the newly added limitation of a "beam blade". This is considered new matter and requires further consideration. The appellant's arguments in a previous appeal brief filed 5/26/06, pages 14-20, have led the examiner to reconsidered the newly added limitation. Throughout the specification it is noted that the terminology "beam" is supported however "beam blade" is not. The appellant's arguments imply that the new limitation of "beam blade" gives structure to the claim. There is no discussion in the original specification or the claims as to what a "beam blade" is or how it is different than any other wiper. Consequently, the term "beam blade" is not supported by the original specification.

**2. Claims 1-5, 7-10 and 13-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Wittwer (USPN 3899800) as evidenced by Thompson (USPN 4587686).**

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With regards to claims 1, 2, 13 and 14, Wittwer teaches a wiper comprising a force-applying member (12) connected to the center backbone at two spaced apart points (31, 32). The backbone or backing strip is a formed from a single, unitary, flexible material that is precurved or prebowed in a direction substantially parallel to the curvature of the windshield (col. 2, lines 57-59). Wittwer does not refer to the backbone as a beam, however, Thompson teaches a wiper blade with a beam (96; col. 10, lines 13-14) that could be used on a tournament style wiper (figure 8, col. 26-28). The beam of Thompson functions in the same manner as Wittwer and therefore, as evidenced by Thompson a beam and a backbone or backing strip are considered equivalent terms in the art. Wittwer teaches a superstructure with four pairs of equally spaced apart claws (30, 31, 32 and 33) that slidably engage with the backing strip or beam (36) by means of claws with pin type structure that engage around the outer exposed longitudinal slot edge portions of the flexible backing strip. The remote claws (30, 33) are at a location  $1/8$  the length of the wiper blade element in from the ends. The four points of pressure being applied to the backing strip or beam at equally spaced apart locations between the remote pressure points beneath the claws (30, 33). It can be determined that the spacing between the two points (31, 32) is  $1/4$  the length of the wiper blade and the ratio of spacing to the total length is  $1/4$  (see figure below), therefore,  $S=0.25*L$  and  $R=0.25$  which falls in the ranges claimed by the appellant.

With regards to claim 3, the preferred spacing distance  $S_p$  between the spaced apart points is *about*  $S_p=0.363*L-0.000146*L^2$ .

With regards to claim 4, the preferred ratio  $R_p$  is *about*  $R_p=0.363-0.000146*L$ .

With regards to claim 5, the force applying member is connected to the backing strip or beam in such a manner as to permit relative longitudinal displacement between the force applying member and the backing strip or beam (col. 3, lines 7-30).

With regards to claim 7, the curved backing strip or beam has a constant thickness along its length (figures 1-5 show the same thickness throughout).

With regards to claim 8, the curved backing strip or beam has a constant width along its length since the yokes do not change. The same clips are used to connect all four points on the backing strip or beam.

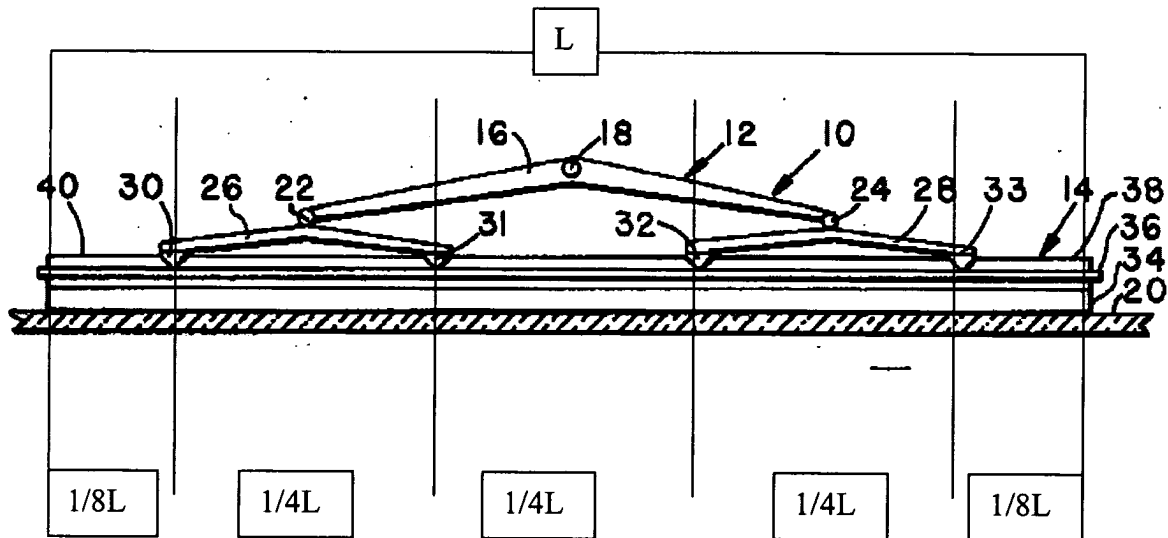
With regards to claim 9 and 10, the backing strip or beam has a free form curvature in a plane (along the x-direction without contact with the window) as well as compound curvature (when in contact with the window, the blade in the x-direction is curved taking the shape of the window and in the y-direction when the blade is in motion the ends of the blade could be curved upward or downward of the middle depending on the direction of the blade movement).

**3. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wittwer (USPN 3899800) as applied to claim 1 above and further in view of Appel (USPN 3192551).**

Wittwer teaches all the essential elements of the claimed invention however fails to teach that the curved backing strip or beam has a varying width and thickness. Appel teaches a curved backing strip comprising a varying width and thickness. It would have been obvious to modify the invention of Wittwer to have a backing strip or beam that varies in width and thickness as taught by Appel to provide substantially uniform pressure along the length of contact between the flexible rubber wiping blade and the windshield. Additionally, it would accommodate a

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correspondingly smaller radius of curvature while retaining appropriate width for resisting lateral drag loads without undue distortion (col. 1, lines 34-48).



### (10) Response to Argument

*Note that the appellant's arguments in the Appeal Brief begin under heading*

*D. Discussion with subheadings 1, 2, and 3 which correspond to the Grounds of Rejection.*

#### **1. Claims 1-10 and 13-14 are rejected under 35 U.S.C. 112, first paragraph**

The appellant argues that the term "beam blade" is fully supported by the written description and the drawings. The appellant further argues that clearly figure 1 shows a "beam blade" which is different than a "tournament style" blade. In response, the terminology "beam blade" is not disclosed anywhere in the specification or the drawings. The specification only has support for the term "beam" not "beam blade" and a "beam" can be used to describe both a "beam blade" and "tournament style" blade. The disclosure does not include a discussion as to the difference between a "beam blade" and a "tournament style" blade and therefore it is not clear whether or not figure 1 is actually a "beam blade". Additionally, the appellant's arguments

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led the examiner to reconsider newly added limitation “beam blade”. Appellant’s arguments imply that the new limitation of “beam blade” gives structure to the claim, however the structure is not supported in the disclosure.

**2. Claims 1-5, 7-10 and 13-14 as anticipated by Wittwer (USPN 3899800) as evidenced by Thompson (USPN 4587686).**

The appellant argues that this rejection under 102 is improper because *the Examiner has combined two references in support of the rejection of the claims*. In response, the Wittwer reference does teach every single element of the claimed invention, including a beam. The reference of Thompson was used as evidence to show that the wiper blade in Wittwer is a “beam”. While Wittwer clearly teaches a “beam” the actual term “beam” was not used in the disclosure. Therefore, Thompson was used as support to show that the backing strip as described in Wittwer, is also known as a “beam” in the art.

The appellant further argues that Wittwer discloses a tournament style windscreen wiper assembly and *the patent application is a beam blade windscreen wiper*. In response, the appellant does not distinguish between the two types of blades in the claims or in the disclosure. The preamble of the claim does in fact claim a “beam blade” however there is no additional structure required by the claim which is not shown by Wittwer. The blade in Wittwer is considered to be a beam blade. The claims are read in light of the specification however, the specification also fails to describe, and/or recognize any additional structure with the term “beam blade”. Therefore, lacking any discussion of how the “beam blade” is different than any other blades, including “tournament style” blades, it can be determined that the claim reads on any blade with a beam.



The appellant argues the fact that the Wittwer reference teaches *a superstructure attached at four points to the backing strip*, wherein the claim only is attached at two. In response, the claim is open-ended because it uses the terminology “including”. This type of language is inclusive and does not exclude additional, unrecited elements or method steps. Therefore, while the claim recites the limitation of two attachment points, it is clear that a structure with more than two also reads on the claim limitations, as shown in Wittwer.

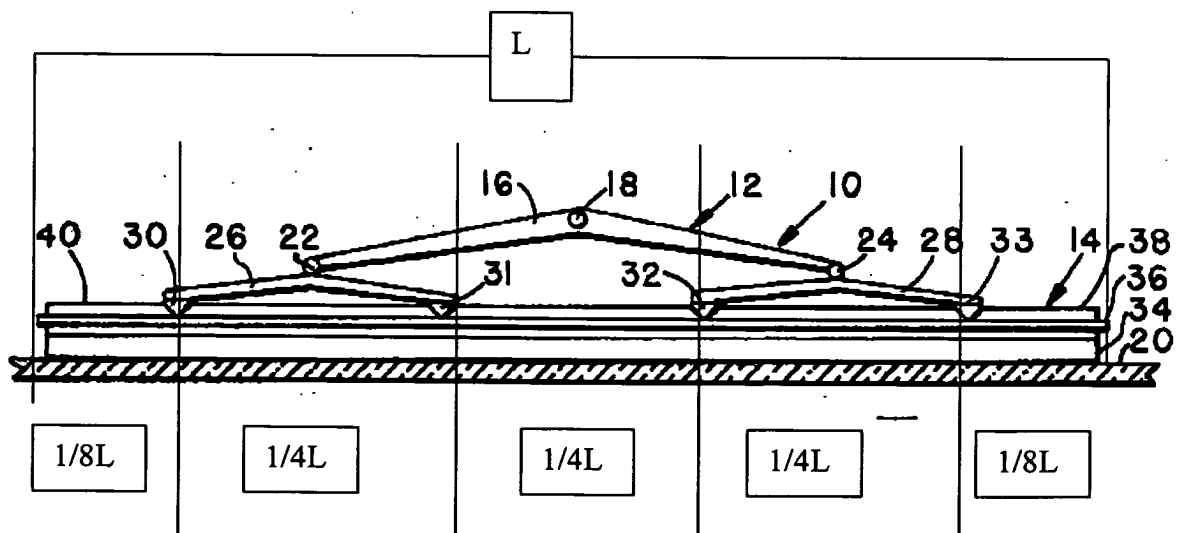
The appellant further argues that Wittwer *actually teaches the conventional use of two backing strips 36* and not a single, unitary, resiliently flexible beam as claimed. In response, the disclosure of Wittwer does not state that there are two backing strips being used. The reference states that there is a “resilient wiping member 34 and a flexible backing strip or flexor 36. The backing strip 36 is nested in a pair of sidewardly opening grooves formed in the head portion 38 of the wiping member 34.” The reference never describes the backing strip in plural form, but only as an individual strip. Even though the reference does state that the strip is nested in a pair of sidewardly opening grooves, it is clear that the reference teaches a single, unitary backing strip. Additionally, for arguendo, even if Wittwer does teach two backing strips, the claim does not exclude a second backing strip from being present. As stated above, the claim is open-ended which does not exclude additional, unrecited elements or method steps.

It is noted that the claims are given the broadest reasonable interpretation based on the original disclosure, which only required a blade with a beam, which is what is exactly taught by the Wittwer reference.

The appellant further argues that *a rejection based on measurements taken from the Wittwer et al. drawings is improper*. In response, the examiner is not relying on measurement

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from the drawings to support the rejection of the claims. Instead, the reference clearly states that there are four pairs of "equally spaced" claws, wherein the remote claws are located spaced  $1/8$  the length of the blade in from the ends (column 2, lines 63-67 and column 3, lines 1-22). The examiner took these limitations and depicted them on the figure below for clarity. No measurements were made on the drawings to determine the distance between the claws with respect to the length. This information is directly from the reference. Therefore, since the ratios of length are known for each claw, it is easily determined that the appellant's claimed spacing distance  $S$  (distance between claws 31 and 32) is equal to  $.25L$  (no measurements needed) and appellant claimed ratio of spacing between points and total length ( $R=S/L$ ) is  $.25$ . With regards to claims 3 and 4, given that the ratios are known for the claw length, any arbitrary number and unit can be used for the length ( $L$ ) as long as the ratios remain the same. For example,  $L$  could equal 32, where  $S$  would equal 8 or  $L=12$  and  $S=4$ . If any of these numbers were entered in the equations for claims 3 and 4, it can be determined that the preferred spacing for Wittwer is *about*  $.35L$  (actual is  $.36L$ ) and preferred ratio for Wittwer is *about*  $.35$  (actual is  $.36$ ) which fall within the accepted claim range in claims 1 and 2.



The appellant further argues that the force-applying member is not connected to the backbone by means of a pin received within the longitudinal slot in the backbone. In response, the claws of Wittwer are U-shaped and have inwardly protruding pin-like structures to clip around the backbone which is received within longitudinal grooves to secure the claws to the backbone.

**3. Claim 6 is unpatentable over Wittwer (USPN 3899800) as applied to claim 1 above and further in view of Appel (USPN 3192551).**

The appellant argues that the *combination of Wittwer and Appel is improper because the windshield wiper assemblies disclosed in both of these patents is structurally dissimilar and because there is no motivation to combine the teachings of these references*. In response, while the wiper in Appel has differences in structure than with that of Wittwer, the advantage of providing the blade with a varying width and thickness along the length would be present regardless of the structure of the wiper. One of ordinary skill in the art would have readily recognized the benefits shown in Appel would be the same in the wiper of Wittwer. Additionally, the appellant does not show any evidence of unexpected results that would render the claims unobvious. The Appel reference teaches the motivation for varying the thickness and width in column 1, lines 34-48. Appel clearly teaches that by varying the thickness and width of the beam, it will provide substantially uniform pressure along the length of the contact between the wiping blade and the windshield. Additionally, it would accommodate a correspondingly smaller radius of curvature while retaining appropriate width for resisting lateral drag loads

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without undue distortion. These reasons provide sufficient motivation for one of ordinary skill in the art to provide the wiper in Wittwer with varying width and thickness.

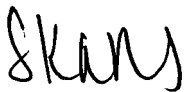
**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.


Respectfully submitted,

Shay Karls



Conferees:

Gladys Corcoran



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